WINSTON SILL/FREELANCE PHOTOGRAPHER

The Jamaica Cultural Development Commission organised the Jamaica Visual Arts Competition Awards and Exhibition, held at the Jamaica Conference Centre, downtown Kingston on Sunday, December 22. Ian Annikie (right), with his awards and gold medal-winning work, poses with Winston Annikie, his grandfather, at the event.

Human activities on natural resources

MONACIA WILLIAMS
Contributor

STUDENTS, LET me take this opportunity to wish you a happy new year and welcome you to this our first lesson for 2014. I trust that you got some rest during the holiday period and you are ready to go again. We have already begun our study of the impact of human activities on the environment by looking at how these activities impacted two of the four resources that were listed for study. Do you remember what these resources are? Of course, you do! Did you say energy, minerals, forests and the resources of the seas and the oceans? If you did, then you are correct. Now, which ones did we look at last week? If your answer was energy and minerals, then you are, again, correct! This week we will continue our study by looking at the remaining two, forests and the resources of the oceans and seas.

FORESTS

The human population depends on the trees in the forests to maintain the balance of carbon dioxide in the atmosphere. Do you know how the trees are able to do this? The trees take in carbon dioxide, which they use in the process of photosynthesis. This continuous removal of carbon dioxide from the atmosphere serves to keep the level of carbon dioxide at 0.03%.

What are the consequences of destroying the forests?

The destruction of the forest is known as deforestation. Many Caribbean countries are suffering from the effects of rapid rates of deforestation.

✔ As said before, trees help to maintain the carbon dioxide levels in the atmosphere, so if the trees are cut down, then the amount of carbon dioxide in the atmosphere will increase. Carbon dioxide is a greenhouse gas and increased levels will contribute to global warming.

✔ Deforestation can contribute to soil erosion. The roots of trees help to bind the soil together and prevent flooding.

✔ If trees are growing close together, their leaves will form a canopy which will serve to break the force of the water when there is heavy rain. This also helps to prevent erosion of the soil.

✔ Transpiration from the leaves helps to maintain the transpiration stream so when deforestation occurs, it can lead to a reduction in the amount of water vapour going to form clouds.

✔ Trees provide food and shelter for many organisms, so deforestation can endanger the survival of these organisms.

✔ Many endemic organisms live in areas such as tropical rainforests. Destruction of these forests can lead to their extinction. These include animals like the Giant Citrus Swallowtail butterfly in Jamaica, the parrots of St Lucia and Jamaica and the iguana, which used to be found in large numbers in many Caribbean islands, but the numbers of which have now dwindled.

If trees are so important, why then are we trying our best to get rid of them? Well, unfortunately, man is not known for thinking long term so we continue to use what we want, when we want to, without spending much time to think of the consequences. Let us look now at some of the reasons forests are destroyed.

✔ We use lumber to make houses and furniture and as populations increase the need for lumber grows.

✔ Trees provide pulp to make paper for newsprint, photocopiers, printers and general uses in offices, homes and schools.

✔ Trees are removed to provide land for farming and cattle ranching.

✔ Trees are removed to provide for the construction of roads and housing schemes.

✔ Trees are also used to provide fuel, either as charcoal or as firewood. In some areas of the world, this is the only source of fuel.

MARINE RESOURCES

Most times when we think of the seas and the oceans, we think only of the fish, large and small, that are found there. These two vast expanses of Earth's surface, however, are much more than providers of fish and their ecosystems are also threatened by human activity. We are going to look briefly at the impact of human activities on the coral reefs that form an important part of our lives as island-states.

✔ Coral reefs are vibrant, delicate structures that provide food such as fish, shrimp, lobsters, sea urchins and seaweeds for humans and shelter for a wide array of organisms.

✔ They also provide avenues for recreational activities such as swimming, snorkelling and scuba diving for tourists. Don't forget that they were the providers of the beautiful white-sand beaches that form the coastline of many Caribbean states.

✔ The reefs protect the island coastlines from erosion since they act as breakers for the waves coming to shore.

✔ It follows then that we ought to take care of them. Unfortunately, it does not always happen as, with the forests, we use and abuse them.

The following gives a list of the destructive activities that are carried out on the reefs.

✔ Divers collect the living corals which they then sell to tourists – corals take a very long time to grow. It takes approximately one thousand years for a reef to grow one metre.

✔ Fishing for reef fishes has caused a lot of damage to the reefs. Some fishermen use traps that damage the structure of the reef. These traps catch fish indiscriminately, trapping the young, mature, small and large. Populations of conch, sea urchins and lobsters have been depleted and some island-states have had to restrict the periods during which they can be fished.

✔ Unsupervised ecotourism activities can also cause damage to the reefs, for example, if humans are allowed to walk and snorkel on them freely.

✔ The dredging of lagoons and the destruction of reefs to create harbours for ocean vessels and the reclaiming of land to build coastal roads and hotels all serve to destroy the reefs.

✔ Discharging untreated sewage into the sea provides excessive supplies of nutrients which lead to algal blooms, causing the deaths of other marine organisms due to oxygen depletion.

✔ The run-off of fertilizers into the sea also causes algal blooms, resulting in the death of other organisms.

Interesting, isn't it? See you next week! Take care!

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FRANCINE TAYLOR-CAMPBELL
Contributor

Metals and non-metals

YOU SHOULD BE ABLE TO:

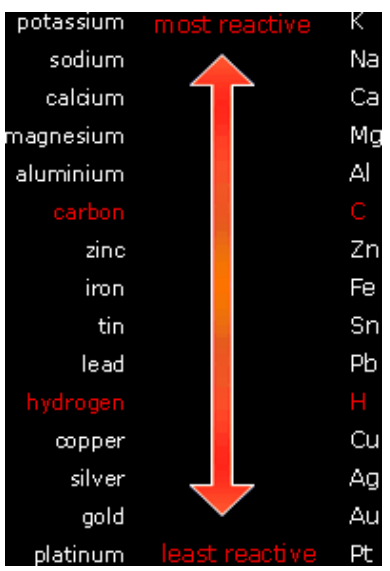
✔ LIST THE general, physical and chemical properties of metals.
✔ Describe the reactions of metals and their compounds.

POINTS TO NOTE

✔ Metals are generally found in groups 1, 2 and 3 of the periodic table.
✔ A metal describes an element that ionizes by losing electrons and is referred to as being electropositive.
✔ Metals are reducing agents.
✔ Most metals react with dilute acids, water and steam. The oxides of metals are basic (except for Al, Zn and Pb) and react with acids to form salt and water.
✔ Metals exhibit the following physical properties: high melting and boiling points, good electrical and thermal conductivity, solids at room temperature (except for Hg) and easily bent or drawn into wires.
✔ The bonding in metals is responsible for their physical properties.

As stated earlier, metals undergo reactions with acids, oxygen, water and steam. The ease with which these reactions occur is dependent on the position of the metal in the reactivity series. This is a list of metals arranged in order of their reactivity or how readily they will lose their outer electrons. A metal that will readily give up its electrons (eg K) is more reactive than one that loses electrons less readily (eg Cu). Metals at the top of the series are the most electropositive and the ones at the bottom are the least electropositive.

The reactivity series of metals is shown below.
From K (potassium) to Pt (platinum) there is decreasing reactivity, ease of ionization, stability of compounds and strength as reducing agents.



SUMMARY OF THE REACTIONS OF METALS

1. Metals react with air or oxygen to form oxides
$2Ca\ (s) + O_2\ (g) == 2CaO\ (s)$ (calcium oxide)
Ag and Au have no reaction with oxygen.

2. Metals react with water or steam to form the oxide or hydroxide.
Na, K and Ca react with cold water to form the hydroxide and hydrogen.
$2Na\ (s) + 2H_2O\ (l) == 2NaOH\ (aq) + H_2\ (g)$
Metals above Pb react with steam to produce the oxide and hydrogen.
$Mg\ (s) + H_2O\ (g) == MgO\ (s) + H_2\ (g)$
Below this there is no reaction with water or steam.

3. With dilute acids, the metals higher up in the series react violently, forming salt and hydrogen. As you go down the list, the reaction is less vigorous until you reach Pb, Cu, Ag and Au, which have no reaction.

4. The thermal stability of the nitrates, carbonates and hydroxides of metals is also based on the reactivity series. The ease with which these compounds decompose when heated increases as you go down the series.

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Delus signs autographs after his rap session with the youths of Franklyn Town Youth Club.

System and application software

NATALEE A. JOHNSON
Contributor

GOOD DAY, students, and welcome to this our lesson 15th lesson overall but first for the year 2014. I hope you got some rest during the holiday period and are ready to go again. In this week's lesson, we will continue to look at system and application software. By the end of this lesson, you should be able to distinguish between at least two types of processing modes, compare at least two types of user interfaces and state the advantages and disadvantages for the three main user interfaces.

The choice of an operating system is also dependent on the processing environment required by the user. The types of processing environment or processing modes are listed below:

- ✔ Batch processing
- ✔ Time-sharing multiprocessing
- ✔ Single user processing system
- ✔ Real-time online processing
- ✔ Single-user multitasking processing

BATCH PROCESSING

These are systems that provide multi-programming of batch programs but have few facilities for interaction or multi-access. Commands or jobs are collected in groups and processed in the order in which they are placed; that is, in a first-in-first-out sequence. Each group of commands or jobs is called a batch. The jobs are entered in a batch queue and then run one or more at a time under the control of the operating system. A job may wait in a batch queue for minutes or hours, depending on the workload. No amendments are possible during processing.

TIME-SHARING MULTIPROCESSING

The processor's time is divided into small units called time slices and shared, in turn, between users to provide multi-access. These systems allow the CPU to switch between different programs rapidly so that users are unaware that they were 'time-sharing' the CPU with others. Several persons can connect to the main computer via dumb terminals and access different application programs.

SINGLE-USER PROCESSING SYSTEM

These systems came on the scene with the advent of personal computers. The majority of small microcomputer-based systems have operating systems which allow a user to operate the machine in an interactive, conversational mode (response to the user's message is immediate), but normally only one user program can be in main storage and processed at a time. There is no multiprogramming of user programs. Multiprogramming occurs when more than one program in main storage is being processed apparently at the same time. This is accomplished by the programs taking turns at short burst of processing time.

REAL-TIME PROCESSING

This is a system that is able to process data so quickly that the results are available to influence the activity currently taking place. There is often a need for multiprocessing. Multiprocessing is the name for the situation that occurs if two or more processors are present in a computer system and are sharing some or all of the same memory. In such cases, two programs may be processed at the same instance. These systems are used mainly in critical systems. Critical systems are systems where delay in the processing of data after its input can lead to the destruction of life and property. Examples of critical systems are systems that monitor critically ill patients, nuclear plants, the engine of an aeroplane, etc.

SINGLE-USER MULTITASKING

This system only allows one person to use the computer at a time to do multiple tasks.

ONLINE PROCESSING (ALSO KNOWN AS TRANSACTION)

This is when the data collected is processed and updated immediately. The user can interact directly with the computer at any desired time. The computer responds to the user's input by outputting some data before the user can do any further input. Daily transactions that involve online processing are as follows: the use of an automated teller machine to make deposits and withdrawals, flight reservations and when we pay our bills online, the customer's account is automatically updated from the withdrawal made to make the bill payments.

USER INTERFACES

The interaction between end users and the computer is said to take place at the human computer interface (HCI) point. The term human computer interface is meant to cover all aspects of this interaction, not just the hardware. One of the most important features normally required in an HCI is that it be user friendly. As the name suggests, a user-friendly interface is one that the end user finds helpful, easy to learn and easy to use. It is easy to recognise unfriendly interfaces but not so easy to design one that is certain to be user-friendly.

THE MAIN TYPES OF USER INTERFACE

There are many different types of user interfaces available. However, we will only be concentrating on the three main types:

- ✔ Command-driven interfaces
- ✔ Menu-driven interfaces
- ✔ Graphical-user interface

Note: In some situations, two different types of interfaces may be combined, for example, a menu interface with command options.

COMMAND-DRIVEN INTERFACES

One of the long-established methods by which a user can interact with the computer is by the use of commands. Commands enable the user to quickly and simply instruct the computer in what to do. However, they require the user to already have knowledge of what commands are available, what they do and the rules governing how they should be typed so they are more suited to experienced users than the end user. A technical person, such as a computer operator or programmer, would be familiar with the commands, or where the end user continually works with the same program and, therefore, can gain mastery of the commands.

ADVANTAGES

- ✔ Faster to use once you have learnt the commands.
- ✔ For a computer programmer, command-driven interfaces are cheaper to implement.

DISADVANTAGES

- ✔ It is sometimes difficult to remember all the commands, therefore, users have to constantly refer to the software user manual.
- ✔ The user is restricted to using only the keyboard as the interfacing device, while with other interfaces a wide variety of input devices can be used.
- ✔ Commands must be entered at a special location on the screen and in a set format.

MENU-DRIVEN INTERFACES

Menus provide another popular form of user interface. There are many different alternative forms of menu. The simplest menus provide the user with a number of options and a simple means of selecting between them. The user is presented with a choice and, therefore, does not have to remember any commands. The interface is, therefore, suitable for beginners and infrequent users. All the user has to do is to make a choice.

A special type of menu is called a **pop-up menu**; an additional submenu pops up as a selection is made. You can click anywhere on a given document using the right-click mouse button to allow a pop-up menu to appear.

Pull-down menus are a special type of menu used in windowing and were briefly introduced. It is a menu displayed as a vertical list which hangs from a horizontal bar on the screen in order to elicit a choice from the user.

ADVANTAGES

- ✔ The user is presented with a list of options to choose from; he/she does not need to remember the commands.
- ✔ It is free from typing errors because the user does not have to type the commands.
- ✔ A wide variety of input devices can be used to interface with a menu.

DISADVANTAGES

- ✔ Several steps are required to issue a command.
- ✔ Once the user has learnt the menu system, it is bothersome to have to wait on the package to present the questions before the commands can be entered.

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Government

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Contributor

OBJECTIVE

DESCRIBE THE electoral processes and systems used to elect a government in the Commonwealth Caribbean.

IS GOVERNMENT NECESSARY?

✔ Government is a necessary factor for the 'peaceful' existence of members of society in order to prevent chaos and anarchy. This is possible as it designs and enforces public policy, as the government exercises executive, political and sovereign power through customs, institutions, and laws within a country.

✔ The government is responsible for the political direction and control exercised over the actions of the members, citizens, or inhabitants of communities, societies, and nations; direction of the affairs of a state, community, and all other political administration.

THE ELECTORAL PROCESS

This is the means of choosing the representatives of the executive and legislative offices of a country. This is usually carried out through an election in a democratic country.

MISSION STATEMENT OF THE ELECTORAL COMMISSION OF JAMAICA

The mission of the Electoral Office of Jamaica is to so conduct national elections that no unfair advantage is given to any party or individual contesting the polls, ensuring that the objective of 'one man one vote' is met under the six stated principles of Universal Adult Suffrage. These principles are:

1. The Vote is Universal
2. The Vote is Free
3. The Vote is Secret
4. The Vote is Direct
5. The Vote is Personal
6. The Vote is Non-transferrable

THE ELECTORAL PROCESS

1. An individual who is a citizen of Jamaica and have reached the age of eighteen, is not an alien, is of sound mind and not incarcerated will be registered to vote with the electoral office. A list with the electorate will be generated.

2. All registered voters are assigned a specific polling station in a constituency.

3. Voters should find out where exactly they will vote, that is the location of their polling station before the election day.

4. Voters will present their Voters' ID card and follow the instructions given by the presiding officer.

5. If you do not have your Voters' ID card, you will still be allowed to vote once your name can be found on the Voters' List, and your identity can be confirmed. This, however, will take some additional time, so be sure to take your Voters' ID card with you.

6. If your polling station is using the electronic voter identification and ballot issuing system, you will be asked to place your index finger on a fingerprint scanner. Once your identity has been verified, you will be issued a ballot.

7. Once you have been issued a ballot by the presiding officer, go behind the voting booth and mark an X very clearly for the candidate of your choice in the space provided. Please use the pencil provided in the voting booth.

8. Fold your ballot twice, as instructed by the presiding officer, to protect the secrecy of your vote, leaving the flap out. Do not show anyone who you have voted for; it is illegal to do, so if caught you will be arrested.

9. Give the folded ballot to the presiding officer so that he or she can detach the flap.

10. Dip your right index finger in the integrity ink and watch while your unopened ballot is put in the ballot box.

11. Once you have witnessed your ballot paper being placed into the ballot box, your voting process is now complete, and you should leave the vicinity in a peaceful manner.

ELECTORAL SYSTEMS

An electoral system denotes how votes are translated into seats. It determines how many votes and what kinds of votes are necessary to award seats to candidates and parties in an election. A voting system enforces rules to ensure valid voting, and how votes are counted and aggregated to yield a final result. Common voting systems used in the Caribbean include the proportional representation and the first-past-the-post.

FIRST-PAST-THE-POST VOTING (FPP)

✔ This system of vote counting is the simplest and the easiest vote counting system to calculate results.

✔ The voter votes for one candidate and whoever gets the highest number of votes is elected.

✔ The winning candidate is the one who gains more votes than any other candidate, but not necessarily an absolute majority.

✔ FPP is used in Jamaica, Trinidad, Barbados and other countries.

PROPORTIONAL REPRESENTATION (PR)

✔ Proportional representation is the general name for a class of voting systems that attempt to make the percentage of offices awarded to candidates reflect as closely as possible the percentage of votes that they received in the election.

✔ It is said to be the most widely used set of electoral systems in the world.

✔ It is based on the assumption that parties are the real contestants and the principle that their seat shares should accurately reflect their vote shares.

✔ Counting and seat-determination processes are generally complex and not immediately transparent.

PROCESS OF THE PR

✔ Candidates are elected based on the total percentage of votes cast for their party.

✔ In this system, the country is treated as a whole – that is, one single constituency.

✔ Political parties involved in the election will prepare a list of candidates this is based on the number of seats in parliament. This list is made in order of preference by the party leader.

✔ People vote for the party and not the candidates.

Note. The PR is used in Guyana.

ELECTORAL SYSTEM ADVANTAGES

1. It ensures that the candidate with the highest number of votes wins the constituency.

2. Each constituency can decide by voting their own representative.

3. With each constituency having a candidate who is responsible for it, this ensures accountability.

4. Citizens in each constituency can appeal directly to their representative to fulfill their needs.

ELECTORAL SYSTEM DISADVANTAGES

1. Opposition candidates constituencies may be neglected or, worse, victimised.

2. A party with a minority of votes overall may form the government. (This may happen as the number of voters in a constituency is never equal.)

3. This system may encourage gerrymandering.

PROPORTIONAL REPRESENTATION

1. This system allows representation from minority parties in parliament.

2. It prevents any chance of gerrymandering.

3. Parties are given/allocated seats in proportion to the votes it receives.

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Control account

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LET US all resolve to make the best of it for time is moving quicker than we sometimes realise. The trial balance is drawn up to test the arithmetical accuracy of the accounts kept in one ledger. There are, however, certain errors that are not always revealed by the trial balance and so detailed checking is needed to find these errors; to do this, a trial balance is prepared for each ledger. This requirement is facilitated by the control account, ensuring that only ledgers whose control account do not balance need detailed checking to find the errors.

Control account is based on the principle that when the opening balance of an account is known, together with the information of the additions and deductions entered in the account, the closing balance can be calculated.

REASONS FOR KEEPING CONTROL ACCOUNT INCLUDE:

i. Being able to check errors quickly by comparing the control account balances with the total of the subsidiary ledger balances.

ii. Information can be obtained rapidly for total debtors and creditors' balances. This is extremely useful for big companies with many individual debtors and creditors.

WORKED EXAMPLE

On October 31, 2012, James Campbell listed the balances contained in his sales ledger. These balances totalled $102,240 but, on the same date, the balance of the sales ledger control account was $108,360 Dr.

After investigation, the following errors were found:

1. A debtor's balance of $4,500 had been omitted from the list of debtors.
2. Although discount allowed of $360 had been entered in the cash book, it had not been posted to the customer's account. [W> 1]
3. A debtor of $900 had proved bad and had been written off. [W>2]
No entry had been made in the control account.
4. Teddy Blagrove was both customer and a supplier. His purchases ledger balance of $1,860 had been set off against his sales ledger balance but nothing had been recorded in the control account.
5. Returns inwards $540 had not been entered anywhere in the accounts. [W>3]
6. Margaret Luminous returned goods worth $420 and this was debited to her account. [W>4]
7. A debtor's account was credited with $180 interest but it was not recorded in the control account.
8. The sales day book had been undercast by $60.

YOU ARE REQUIRED TO PREPARE:

a. An adjusted sales ledger control account.

b. A statement, suitably headed, showing the reconciliation of the original total of the sales ledger balances with the amended sales ledger control account balance.

SOLUTION

a. Sales Ledger Control

2012		$	2012		$
Oct. 31	Balance b/f	108360	Oct. 31	Provision for doubtful debt	1200
	Interest charged	180		Purchases ledger –Contra	1860
	Sales undercast	60		Returns inwards	540
				Adjusted Balance c/f	105000
		108600			108600

b.

James Campbell
Statement to Reconcile Sales Ledger Balance
With the Amended Sales Ledger Control A/c Balance as at October 31, 2010

	$	$
Balance as per sales Ledger balance (October 31, 2012)		102240
Add: Balance omitted		4500
		106740
Less: Discount allowed not posted	360	
Returns inwards not recorded	540	
Returns inwards wrongly debited	840	1740
		105000

REASONING

[W>1]
Since it had been entered in the cash book, we can assume it had already been recorded in the control account.

[W >2]
The clue 'had been written off' means the respective debtors' accounts had already been adjusted.

[W>3]
All accounts must be adjusted.

[W>4]
The account should be credited, not debited. To correct this error, credit the account with double the amount ($420 x 2 = $840)

JUST A REMINDER

- Control account is an account that checks the arithmetical accuracy of a ledger.
- Control accounts enable errors to be traced to the ledger that does not balance.
- Transfers between sales and purchases ledgers should be shown in the control account.

This is a suitable point to break. Next week we will continue as we highlight control account – Part 2.

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DEBBION HYMAN
Contributor

African cultural forms

OBJECTIVES

AT THE end of the lesson you should be able to:
1) Define the term 'African cultural forms'.
2) Discuss why the enslaved Africans sought to retain their cultural practices.
3) Outline three reasons the colonial establishment sought to restrict enslaved Africans of the ability to practise their cultural habits.
4) Describe four methods used by the colonial establishment to prevent enslaved Africans from practising their culture.
5) Assess the ability of the enslaved Africans to retain aspects of their various cultural forms.

This week, we will assess the various cultural forms of the enslaved Africans. Though being forcibly removed from their homeland, many continued with their cultural practices, oftentimes secretly. In this week's lesson, we will examine the mechanisms employed by the enslaved Africans to retain their cultural practices and the measures employed by the colonial authorities to hinder their practice. Additionally, we will examine some of the cultural practices still retained by the enslaved peoples up to 1838.

AFRICAN CULTURAL FORMS

African cultural forms are the various everyday activities of our ancestors that they brought with them from their homeland and practised on the plantations during slavery so as to keep their heritage alive, as well as to survive the harsh realities of enslavement.

The enslaved Africans sought to retain their cultural practices as it provided a linkage with their homeland and served as a means of resisting their system of chattel slavery. The enslaved Africans were conscious that continuing their cultural practices was one of the few ways that they could retain elements of their homeland and to undermine the system of chattel slavery. For instance, drumming was prohibited by the colonial establishment because it could have been used as a tool to preserve African identity and communication. However, the enslaved Africans continued secretly with the practice or, quite cleverly, fused elements of their African culture with Euro-Christian traditions.

Why did the Europeans ban, degrade and fear African cultural practices?

(1) They did not understand them as they were foreign and seemed unnatural.

(2) They were ignorant about the African culture as they knew very little about the societies from which they had taken their labour force.

(3) They were fearful of what the Africans were practising as they believed they were planning insurrections or even ridiculing them.

Methods employed by the colonial establishment to prevent enslaved Africans from practising their culture –

(1) They passed police laws that controlled the movement and behaviour of the enslaved Africans. Some of these laws made it illegal for slaves to blow horns, beat drums or assemble together in large numbers, especially at nights.

(2) Some planters ensured that they did not purchase enslaved Africans from the same tribe as this would lead to them engaging in their common cultural practices.

(3) The practice of obeah was banned.

(4) They belittled the African culture. Some planters went as far as describing the slave dances as devil worship.

(5) Some felt the slaves' music was noisy and bawdy and inferior so they discouraged them from singing.

(6) Sometimes planters extended the workday and shortened the free time so the enslaved Africans would be too exhausted at the end of the day to do anything other than rest.

(7) Some planters discouraged the practice of tribal religions but, instead, forced the slaves to be baptised into Euro-Christian churches so as to try to destroy their link with their native religion.

(8) During the period of seasoning, the slaves were 'deculturised' as they were taught the language of the master and forbidden to use their own tribal languages. They were robbed of their African names and were given European names.

(9) Marriages and families were never encouraged in the British colonies – the family is a principal agent of socialisation and transmitter of cultural practices.

Though the enslaved Africans were discouraged from continuing their cultural practices, many did and even passed on many of these practices to enslaved peoples born in the Caribbean. Some of the cultural practices retained include elements of their a) music and dance, b) religion, c) language/dialect, d) craft/fashion, and e) social relations and skills.

MUSIC AND DANCE

1. Enslaved Africans engaged in dancing and singing on the nights and weekends to entertain themselves and while they worked.

2. Enslaved Africans would sing and dance at wakes (nine-nights), funerals and during worship services which they held in secret.

3. The enslaved Africans used musical instruments such as drums, tambourines, xylophones, banjos, etc.

4. The planters disliked the Africans' music as they could not understand the language and rhythms and they saw it as inferior.

5. The planters believed that the enslaved Africans communicated through their music, especially the drums and, as such, they banned the use of these items on the estates.

6. The Europeans did not want the enslaved persons retaining any aspect of their identity; they wanted them submissive to their new 'lot' as slaves.

7. The enslaved peoples retained several musical celebrations such as John Canoe and kumina. They fused African customs and European traditions to create indigenous customs and religions, for example, revivalism.

8. Indigenous African dances included kumina, brukins and dinky mini.

RELIGION

1. The enslaved Africans believed in a creator but also practised spirit worship and spirit possession.

2. Myalism was practised on the estates and most estates had a myal man. A myal man was skilled in the use of herbs. Enslaved Africans employed the use of herbal remedies as access to traditional medicine and its practitioners was limited. Planters would only employ the services of a doctor for the most skilled slaves.

3. There was an obeah man on most estates. The practice was, however, banned on the estate.

4. The obeah man provided charms for enslaved Africans and promises of protection.

5. Indigenous African religions such as Kumina were secretly practised on the estate.

6. There was a fusion of African and European religions which resulted in local Caribbean religions such as voodoo (Haiti), shangoism (Trinidad), santeria (Cuba), pocomania (revivalism).

LANGUAGE/DIALECT

1. The grammar or forms of speech of Caribbean Creole is based on elements found in the speech of many of our African ancestors. In most instances, the African word had been replaced by an English, French or Spanish word, but some of their own survived. For example, affu and nyam.

CRAFT/FASHION

1. Basket work and straw plaiting was used to make bed mats, baskets and wicker chairs.

2. Traditional pottery skills continued in the making of earthenware pots and jars.

3. The practice of wrapping women's heads and the braiding or plaiting of hair into delicate cornrows.

ACTIVITIES

1. Create a web map detailing African language and religion. The map should detail:
a) How Creole/Patois developed in British Caribbean society.
b) Two African terms/words retained.
c) Two African religions that were introduced to the British Caribbean.
d) A definition of the term 'syncretic'.
e) An explaination of why syncretic religions developed in the British Caribbean.

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Meetings

HYACINTH TUGMAN
Contributor

WELCOME TO 2014, students. I trust that it will be a prosperous year for you as you work hard towards making your dreams come true. We will pick up where we left off last year. As you begin to work in an organisation, one of your many duties could be planning meetings and conferences, or you may be involved in behind-the-scenes activities such as preparing materials and arranging for speakers. Perhaps you may actually be at a particular meeting where you will have to take notes or even lead a discussion. Whatever your role, you will need to know the basic functions of planning for successful meetings and conferences.

As a result, in this unit you should be able to:

- State the reasons for holding meetings and their importance to the organisation.
- Organise a meeting.
- State basic legal requirements of annual general meetings.
- State the importance of minutes of meetings and of following up decisions.

TYPES OF MEETINGS

Meetings are held primarily to conduct business, to pass on needed information to a group or to an individual, or to follow up on a particular activity of the business. Meetings may be formal or informal. Whether a meeting is formal or informal depends on its purpose. Meetings can be as short as a few minutes or can stretch out over several days. When a meeting stretches out over several days, it is referred to as a conference.

INFORMAL MEETINGS

An informal meeting usually discusses daily activities, is conducted in an individual office or in a small conference room and does not involve complicated arrangements or scheduling. The three basic types of meetings held in the office are staff meetings, committee meetings and individual meetings.

STAFF MEETINGS

Staff meetings play an important part in the operation of the organisation. The purpose of a staff meeting is to discuss and solve problems, make decisions, review progress, plan projects and to recognise the part they play in achieving the aims of the organisation.

COMMITTEE MEETINGS

Committees are often appointed by supervisors to further discuss or study a matter related to a particular topic. Committee meetings may be held in a room where the committee members meet, in the office, via the telephone, through a conference call or through electronic communication. For example, you may work in one of several branches of a business and you may be serving on a company committee to study a particular issue, such as productivity. In order for your committee to function properly, the committee members from all the branch offices will have to participate, but an in-office meeting may be highly unlikely, so another means may have to be employed. If you are serving on a committee that functions within your branch office, then committee meetings will, naturally, be held within the office.

CLIENT MEETINGS

Client meetings are very important business meetings. These meetings are held wherever it is convenient for the parties involved. For example, a client meeting may be held in the office or at a restaurant. Business is often conducted over lunch or dinner.

FORMAL MEETINGS

Formal meetings include annual general meetings, extraordinary meetings and board meetings. These may also be held at the office or at another location. Because of their nature, formal meetings require greater preparation. Location is a very important consideration for a formal meeting because of those attending and the structure of the meeting.

ANNUAL GENERAL MEETINGS

This meeting provides the opportunity to elect or reinstate office holders for the coming year and for the organisation to declare future strategies. The regulation for calling and holding such meetings are laid down in the Companies' Act. It is at this meeting that the treasurer's report is usually presented.

EXTRAORDINARY MEETING

This is an additional general meeting called (when an AGM is not due) to discuss some unexpected event requiring the consent of all the members, according to regulations of law.

BOARD MEETINGS

These are held throughout the year, as required by a company's regulation. They are used to approve financial and other management decisions, as well as make other important decisions.

NOTIFYING PARTICIPANTS

It is essential to notify each person, who will participate in the meeting, of the meeting time and location.

TELEPHONE

It is important to call the meeting participants as soon as the date of the meeting is established. Telephone notification should be followed up by a written confirmation.

WRITTEN NOTICE

When a formal meeting is planned, all the participants who are to be present should be notified in writing not less than 21 days prior to it. A written notice also reduces the chance of miscommunication.

ELECTRONIC MESSAGE

In these days, many companies have a special system that allows for the communication of messages electronically. If the company has an electronic calendaring system, meeting times can automatically be entered into the electronic calendar's memory. This system allows you to key in information about a specific meeting. The computer will check the schedules of the meeting participants and either add the meeting to their calendars or let you know which participants have a scheduling conflict at the proposed meeting time.

As I close this lesson, let me implore you to continue to read additional texts, especially for your weaker areas.

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Algebra

CLEMENT RADCLIFFE
Contributor

BEFORE I begin, students, let me use this opportunity to wish you all the very best for this new year. Picking up with where we left off, this week we will complete the review of algebra by considering aspects of graphs. Specifically, it is my intention to elaborate on the solution of quadratic equations using a graph.

REMINDERS

- ✔ A quadratic equation is represented graphically by a curve.
- ✔ A curve should be drawn by free-hand sketch.
- ✔ The x axis has the equation y = 0 and the y axis has the equation x = 0
- ✔ Given the curve y = f(x) and the line y = g(x), then the points of intersection of both are represented by:

y = f(x) = g(x) f(x) = g(x)

If f(x) = x^2 - 3x + 2 and g(x) = 0 (x axis)

Then the points of intersection of the curve and the line is represented by : x^2 - 3x + 2 = 0

Therefore, the solution of this equation is the x coordinates of the points of intersection of the curve and the x axis.

If f(x) = x^2 - 3x + 2 and g(x) = 2x - 1

Then the points of intersection of the curve and the line is also represented by: f(x) = g(x).

x^2 - 3x + 2 = 2x - 1

x^2 - 3x - 2x + 2 + 1 = 0

x^2 - 5x + 3 = 0

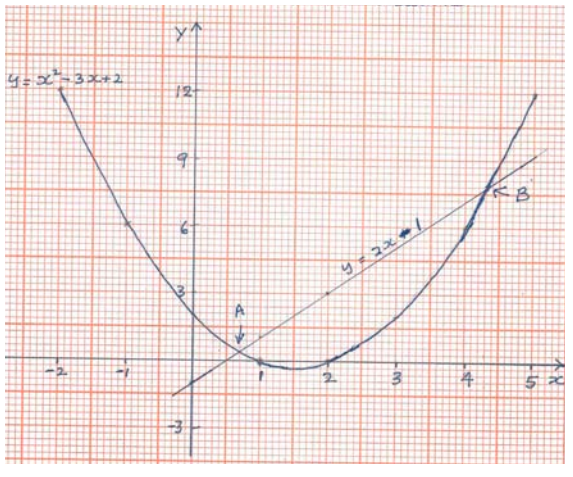
The x coordinates of the points of intersection is therefore the solution of the equation x^2 - 3x + 2 = 2x - 1
OR x^2 - 5x + 3 = 0.

The following are the graphs of f(x) and g(x) illustrating the points of intersections.

y = x^2 - 3x + 2 y= 2x - 1

x	–2	–1	0	1	2	3	4	5
y	12	6	2	0	0	2	6	12

x	0	1	2
y	–1	1	3



Points A and B represent the points of intersection and the x coordinates are the solutions.

The following is another example for your review.

EXAMPLE

Using an appropriate scale, please plot the curve y = $3x^2$ - 2x - 1. Hence, solve the equations:

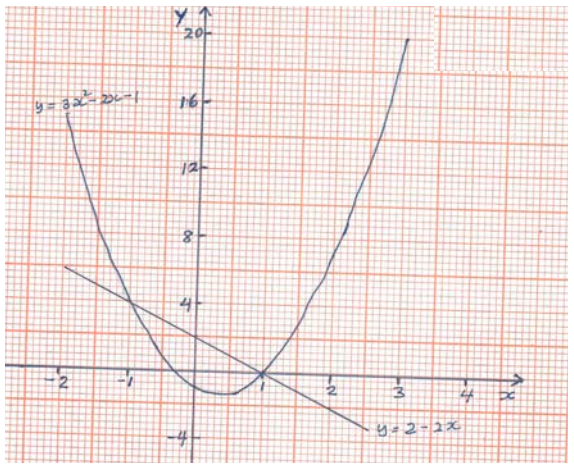
a) 3x2 - 2x - 1 = 0 b) 3x2 - 2x - 1 = 2 - 2x

c) 3x2 - 3 = 0 or x2 - 1 = 0

SOLUTION

Given the equation y = $3x^2$ - 2x - 1, we complete the table:

x	– 2	– 1	0	1	2	3
y	15	4	– 1	0	7	20



a) Given the curve y = $3x^2$ - 2x - 1, the solution of the equation $3x^2$ - 2x - 1 = 0 is the x values of the points of intersection of the curve y = $3x^2$ - 2x - 1 and the line y = 0 or the x axis. The solution is x = 1, - .33

b) Given the curve y = $3x^2$ - 2x - 1, by plotting the line y = 2 - 2x, then the points of intersection of the curve and the line will represent the solution of the equation $3x^2$ - 2x - 1 = 2 - 2x. From the graph, the solution is x = - 1, 1.

c) **Points to note**

Given the curve y = $3x^2$ - 2x - 1, then the curve may be used to solve any equation as long as $3x^2$ - 2x - 1 is on one side of the equation.

To solve the equation $3x^2$ - 3 = 0, then the equation must be re-organised to the form with 3x2 - 2x - 1 on the left-hand side.

Given the equation $3x^2$ - 3 = 0, if the curve y = $3x^2$ - 2x - 1 must be used, then 3x2 - 3 = 0 is reorganised as follows:

$3x^2$ - 2x + 2x - 2 - 1 = 0.

$3x^2$ - 2x - 1 + 2x -2 = 0

$3x^2$ - 2x - 1 = 2 - 2x

The solution of the equation $3x^2$ - 3 = 0 is the x coordinates of the points of intersection of the curve y = $3x^2$ - 2x - 1 and the line y = 2 - 2x. As in b) above, x = - 1, 1.

EXAMPLE

Given the curve y = $2x^2$ - x - 3, solve the equation $2x^2$ - 2x - 5 = 0.

SOLUTION

By reorganising the equation 2x2 - 2x - 5 = 0, it follows that:

$2x^2$ -x -x - 3 -2 = 0

$2x^2$ -x- 3 - x - 2 = 0

$2x^2$ -x- 3 = x + 2

Then the solution of $2x^2$ - 2x - 5 = 0 is the x coordinates of the points of intersection of the curve y = $2x^2$ -x- 3 and the line y = x + 2.

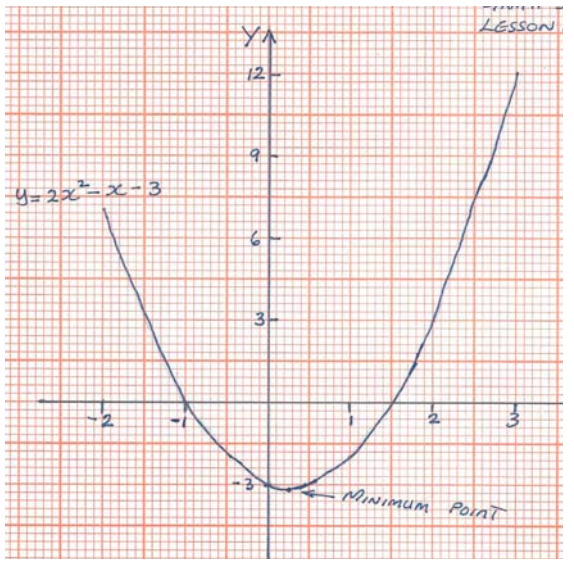
By plotting the line y = x + 2, the solution of the given equation is found by reading off the points of intersection.

Let us now review the application of graph to find maximum and minimum values.

Given the function f(x) = $2x^2$ -x- 3 , the minimum value may be found using the graph y = $2x^2$ -x- 3. This value is found by the determination of the coordinates of the turning points of the curve. Given the turning point M (x , y), then the x coordinate is the position of the minimum value and the y coordinate is the minimum value of the function f(x).

Plotting the graph y = 2x2 -x- 3

x	–2	–1	0	1	2	3
y	7	0	–3	–2	3	12



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NATASHA THOMAS-FRANCIS
Contributor

Story writing

HELLO, CLASS and welcome to our first lesson for 2014. It is not too late to wish you a happy new year, so let me start there. In our last lesson we began our discussion on story writing. We looked at examples of character and setting descriptions. I hope you reread those descriptions and took note of how the writers brought those descriptions to life. Of course, in a story you cannot merely describe characters and setting without putting them in the context of a plot. So, this week we shall take a journey into story land by focusing on plot development.

In addition to characterisation and setting, narrative plot is a very important element of story writing. The plot is a series of incidents or the design of a story. A story may be written in chronological order. However, some skilful writers employ the flashback technique (we will discuss this in another lesson).

Most plots contain the following key aspects:

Exposition – The beginning or introduction, which includes the scene or setting and the introduction of the main character(s).

Initiating event – This starts the plot moving. It introduces the conflict.

Crisis – This is a moment of difficulty or danger which the main character(s) experience. There may be more than one in a story. However, in a short story, there should not be too many crises.

Climax – The point at which the story reaches its highest interest or the moment of highest tension for reader.

Resolution – The point at which the event (conflict) is resolved. The outcome may be either happy or disappointing.

This is the basic framework/structure of any story. It is important that your story contains all of these elements if you wish to receive a good mark in the examination. One weakness highlighted in the English A CXC Examiners' Report is that weak students tend to write a report of events rather than a well-developed plot. Therefore, you must pay keen attention to plot structure when writing your own stories.

I want you to read part 1 of a short story. I consider it to be a very good example of plot development. The stimulus item for the story was:

"Some people never give up. They keep going on and on and on." Write a story which begins with these words.

Can you identify the exposition in this story?

"Some people never give up. They keep going on and on and on. People of this calibre have forged themselves a place in history's archives, boys, and if you live up to the challenge, so will you. Do your country proud."

The words of the arrogantly confident field commander whistled through his ears as a landmine exploded behind him. The blast of choking sulphur and ash rocked him, sending him to his knees on the ground. The screeches of Arabic curses seared his mind; he closed his eyes and wondered, "Is this what going on means?" How ironic it was that the passionate speech, fired with patriotism, had been given what felt like centuries ago, on the soil of a country he doubted his feet would ever kiss again. How ironic that he, a humble field soldier, now gambled with his life and a dubious metallic weapon, on the battlefield of someone else's was, while the illustrious commander was tucked away safely home, no doubt commenting gravely on the exploits of 'our boys out there'.

He struggled to rise to his feet at the same time dreading the visual holocaust sure to assail him. The centre of the town's once prosperous financial district had been transformed into a base of squalor and destruction, where blood ran in the gutters instead of water...oh, for a taste, a drop of water, the soldier thought, raising his eyes to the relentlessly blazing Middle Eastern sun. Mere feet away from him, children garbed in tattered rags kicked at the remains of a decaying mongrel. The stench of putrescence that rose from its desiccated limbs ought to have made them vomit, but they surely had nothing to expel from their bellies save gastric acid. Surely, these people were promised food from my country, he wondered, the benevolent gesture of a superior nation, confident of its victory? No...then it seems the first casualty of war is truth.

I'm sure you were able to identify the main character and setting in the introduction (exposition) of this story. The main character is a soldier who is obviously unimpressed with his own country's contribution to a country to which he has been sent. Which phrases indicate the narrator's cynical tone?

The setting is a poverty-stricken, almost forsaken town in a Middle Eastern country. Phrases such as "a base of squalor and destruction", "blazing Middle Eastern sun", "desiccated limbs" and "stench of putrescence" paint a picture of oppression and dearth. An apparent war is taking place, depicted by the following phrases: "blast of choking sulphur and ash rocked him", "visual Holocaust" and "where blood ran in the gutters instead of water". Are there any other words or phrases which have contributed to a description of the setting? Remember that setting is not just physical space; it is also the atmosphere and mood created.

What do you believe will happen next in the story? In next week's lesson, I will give you the second part in which you will find the initiating event, the climax as well as the resolution. So, see you then.

Have a blessed and productive week!

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From the graph the turning point is (1/4, - 13/4)

The minimum value of f(x) is - 13/4 and is at the point is (1/4, - 13/4)

A similar approach is used to find the maximum value of f(x) = - 2x2 +5x+ 3

Please attempt the following examples on your own:

1. Given the function f(x) = 2x2 - 9x - 5, solve:
i) 2x2 - 9x - 5 = 0
ii) 2x2 - 10x - 7 = 0
Please explain your method.

2. Given the function f(x) = - 4x2 + 3x + 2, solve:
i) - 4x2 + 3x + 2 = 0
ii) - 4x2 - x + 1 = 0
Please explain your method.

3. Given that h(x) = 4x2 - 8x - 1
By plotting the function h(x), find :
Its minimum value.
The value of x for which h(x) is a minimum.

Please continue to practise, using exercises from your textbooks.

Enjoy the rest of the week.

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Drawing a cross section

MESHECH GREEN
Contributor

A CROSS SECTION represents the shape of the land drawn as if a vertical 'slice' were made through the landscape over a particular distance. Imagine cutting a potato in two pieces and having to draw the shape of the cut. Diagrams that show the different layers of the earth (crust, mantle and core) are also cross sections. However, the type of cross sections that we want to draw is taken from a topographic map and the data comes from the height of the land.

Drawing a cross section is similar to drawing a graph, which uses contour values for plotting the height and shape of the land using smooth-flowing curves. This is especially useful if you want to have a more accurate idea of the shape of the top of the land. Drawing cross sections is one of the more technical geographic skills and requires a good amount of practice to master it.

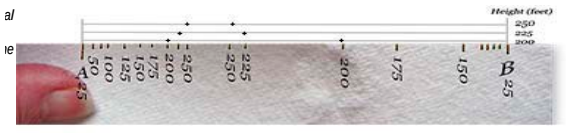
The following are general steps you can follow to complete your cross sections.

1. Identify the points (A and B) between which the cross section will be drawn and draw a line to connect these points. Note the height of both places and the height of the point where the contours intersect the line AB drawn. If the contours are very closely spaced, note every other one.

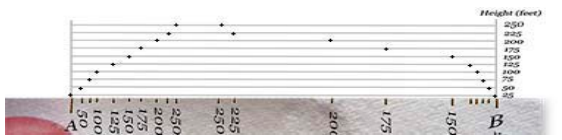
2. Place a straight-edged strip of paper along the line AB and mark off each contour and its value along the edge of the paper. Once again, if the contours are very closely spaced, mark every other one. This step will help you better keep track of the points you are plotting.

3. Draw two vertical lines to represent the height and a series of horizontal lines at 3mm or 5mm apart to represent the vertical interval. Choose a suitable scale for the vertical interval with the lowest value to represent sea level at '0 units'. Indicate the unit of measurement at the top of either vertical lines.

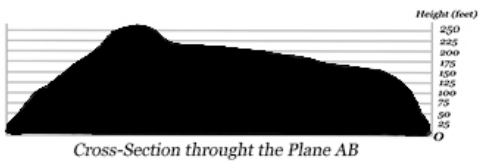
4.Place the marked strip of paper along each horizontal line (ensure that A and B are always lined up with the vertical lines) and transfer each mark to the corresponding height on the scale.



b.

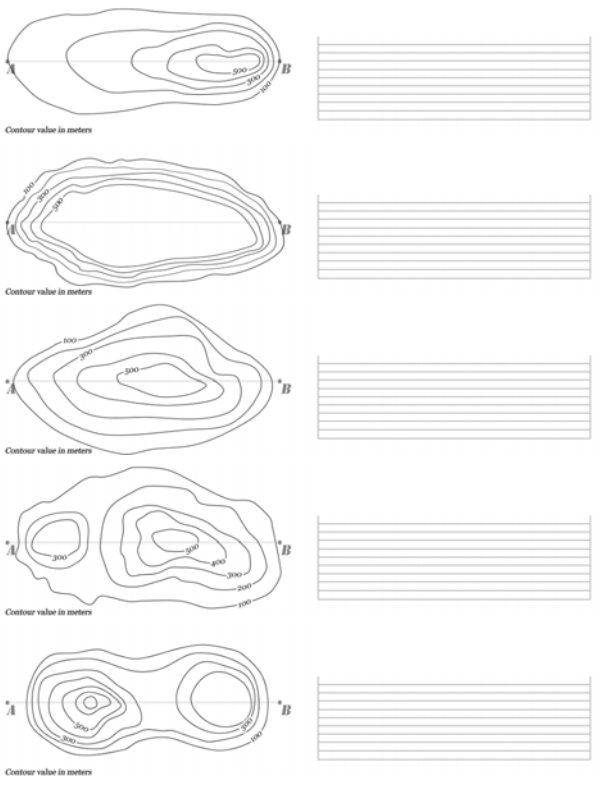


5. Use smooth curves to join all the points after plotting the cross section. Shade or use hatched lines to highlight the shape of the land. Finish off by giving the cross section a proper title.



Cross-Section throught the Plane AB

Here are some simple contours that you can use to practise and become more competent at drawing cross sections. I have also provided the grid for you to draw the profile of the land. Next week, I will show you the results and you will be able to check that you have got all of them correctly drawn. By the way, I hope that you are just making the little adjustments on your SBAs so that you can go into the exam room with as many marks as possible. Good luck and all the best with these practice cross sections. Until then, stay focused.



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A Midsummer Night's Dream

BERYL CLARKE
Contributor

HELLO, STUDENTS, and welcome to our first lesson for the new year. We have all been given the opportunity to make the necessary changes that will take us closer to our dreams. Let us make the best of it. The last time we talked about **A Midsummer Night's Dream**, we focused on Bottom. This week, before we turn our attention to something else on our syllabus, we will briefly look at another character. I do not believe that you will be surprised that this is Puck. Like Bottom, he appears in all three strands of the story and is a source of humour.

Puck is employed by Oberon, the king of the fairies, as his jester or clown; what we, nowadays, call a comedian or entertainer. This, however, is only one of the roles that he carries out in the drama. Yes, he, at very rapid (remember he is a fairy) speed, secures the potion that his master requires to interfere in the affairs of the human lovers, but he starts a confusing episode by administering the drops to the wrong person. Now ask yourself, how does his action here, as well as when he puts the ass' head on Bottom, affect the play? What is added as a result of his mistake in the first instance and his cruelty later in the second incident? Think about these questions carefully and then write down your answers which you can share with others for discussion.

As the story unfolds on stage we learn more of his ability. He can produce fog and he has the gift of mimicry. When he is given a task, he performs it, sometimes not well, but the end result produces the desired response of laughter from the audience. Puck does not only feature as a mischievous 'hobgoblin', as he is once described in the play, but he is also the character who restores order. After all, he causes Lysander to get back his sight and re-establish his love for Hermia. Bear in mind, too, the fact that at the end he apologises to the audience for any wrongdoing that he may have committed. This, of course, is completely in keeping with what we expect of a comedy.

Now, we are going to move on to refreshing our minds and memories through another literary genre.

When was the last time that you read a novel? There are only two of them on your syllabus and I am confident that many of you have already had the pleasure of reading them. Reading is the favourite hobby of a great number of persons, among whom I am included. I clearly remember my grandfather's love of reading – the Bible and The Daily and **Sunday Gleaner** being his literary staples. Oh, how I was rapped on my knuckles when caught reading a Hardy Boys book instead of practising on the organ. While I still read voraciously, I am a complete failure on the organ. You, however, can master both or anything you put your mind and efforts into doing.

Let me remind you that one sure way of 'visiting' other parts of the world while never having to pay travelling expenses is to read widely, and I mean here that you should try to read 'sound' books. The CXC English syllabus has a large number of suggested reading materials. If you do not have a copy of this syllabus, you should be able to borrow from your teacher. There are many other rewards for reading novels:

- ✔ The widening and strengthening of your vocabulary.
- ✔ The improvement of your expression.
- ✔ The improvement of your ability to spell.
- ✔ The sharpening of your skill of analysis.

By this you know that we are starting our work on the novel. Before we bite into the sweet, juicy fruit of our first one, however, here is some preliminary information.

A novel is written in continuous prose, unlike a play. It also has many elements including a plot, characters, setting, point of view, themes and some amount of dialogue. It tells a story and does so in an orderly manner. Now, this does not always mean that the story begins at point A and proceeds, step by step or development by development, through to Z. Some writers use a technique known as flashback. In this, the writer introduces the story from Z, then moves to A and then proceeds to Z again. This means that the story moves out of sequence to deal with an event or situation that occurred before the time that the story takes place. In this way the author is able to give his readers background information. Foreshadowing is another technique sometimes used by authors. This is the early introduction into the story of characters, situations, objects or events that hint at things to come. It gives the writer the opportunity to suggest future developments and to gradually prepare his/her readers to realise the importance of some details.

The narrative (novel) may have some facts and some history in its background, but it is the imaginary work of an author. In other words, the writer is the creator of the characters, their relationships, the actions in the story and for how all is brought to an end or resolved. Of course, in some stories, the focus is on real people and events.

Have a wonderfully productive week and God bless!

Beryl Clarke is an independent contributor. Send questions and comments to ***kerry-ann.hepburn@gleanerjm.com***

Nationalised industries

YVONNE HARVEY
Contributor

YES, FRIENDS, I'm here again, and this time I want to wish you a happy and prosperous new year. We will begin 2014 with our coverage of nationalised industries as we continue our analysis of public-sector businesses.

Nationalised industries refer to businesses (firms or industries) that were once in the hands of the private sector but have then been taken over by the State or government.

Firms or industries that are nationalised are usually those that are seen as beneficial to the country but can no longer be run efficiently by the private owners. In some instances, the private sector offers the good or service but the price that consumers are required to pay is considered, by the government, to be too high. Thus, the government nationalises or takes over the business from private hands.

Light and power industries in most Caribbean countries are nationalised or have been nationalised at some point in time. In many cases also, water supplies, airline industries and railway industries are nationalised. Please note, however, that some industries are nationalised in one Caribbean country and not in another. Also, countries that have a more controlled economy tend to have more nationalised industries.

Many nationalised industries were formerly public utility companies.

A nationalised industry does not have shareholders like the private and public company or the co-operative. When an industry is nationalised, shareholders are given government stock in return for their shares. They will receive interest on this stock, whether the industry makes a profit or loss. However, they will no longer have a say in how the business is run, since ownership and control are in government hands.

WHY NATIONALISE?

1. Nationalisation often occurs when private owners do not have the capital required to provide the essential good or service efficiently and cheaply to consumers. For example, the capital outlay required for the airline and railway industries is quite significant and not many private investors can or are willing to come up with such amounts. Many governments have, therefore, injected large sums of money into industries that have been nationalised.

2. Many private-sector businesses are owned by foreigners who repatriate the profits. For example, multinationals. When nationalisation occurs, ownership, control and profits remain in the region. Profits are thus transferred from private individuals to the wider community. This often leads to regional economic development which is a plus for the region.

3. Through nationalisation, private monopolies are prevented or are broken up if they exist. These private monopolies often restrict quantity and cause prices to rise substantially. Private monopolies only benefit the few monopolist owners, while nationalisation benefits the society at large.

4. While both private- and public-sector businesses employ persons to work for them, public-sector businesses such as nationalised industries create more employment for persons. Also, the employment tends to be more secure than private-sector employment.

5. Private-sector businesses, in general, are not willing to expand for the benefit of society. Therefore, expansion comes with the realisation of increased profits. The State, on the other hand, considers social welfare and hence will move for nationalisation.

6. With nationalisation, governments may be able to reap 'economies of scale'. These economies or advantages of large-scale production can be passed on to consumers in many forms, including lower prices.

7. Nationalisation makes standardisation possible. Standardised output is usually more uniformed and efficient.

8. There are some industries that provide essential goods and services and would be better owned and managed by the State or government.

9. Governments nationalise in order to revive or revitalise a declining industry. They do this by 'pumping' new investment into the industry.

This is where we will stop for this week. Next week, we will complete nationalised industries and consider a question in this area. Keep safe until then. See you.

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